IN THE CLAIMS

1. [Canceled]

2. [Currently Amended] The magnetic trip unit of claim ~~1~~ 4, wherein said predetermined position is defined by a gap between said plunger surface and said stator surface.

3. [Withdrawn] The magnetic trip unit of claim 1, wherein said plunger surface comprises a convex conical surface and said stator surface comprises a complementary concave conical surface to operably receive said plunger surface.

4. [Currently Amended] A magnetic trip unit for actuating a latching mechanism to trip a circuit breaker upon an overcurrent condition, the magnetic trip unit including:

an electrically conductive strap;

a flux return component in electromagnetic communication with said electrically conductive strap;

a tube disposed within said flux return component;

a stator disposed at a first end of said tube connected to said flux return component, said stator having a stator surface at one end; and

a plunger slidably extending from a second end of said tube, said plunger includes a plunger surface at one end facing said stator surface, said plunger further includes another end adapted to operably interact with the latching mechanism, said plunger is biased to a predetermined position~~The magnetic trip unit of claim 1~~, wherein said plunger surface comprises a concave conical surface and said stator surface comprises a complementary convex conical surface to operably receive said plunger surface.

5. [Original] The magnetic trip unit of claim 2, wherein said plunger surface and said stator surface are each configured having a complementary conical shape, said

complementary conical shape providing a generally linear relationship between said gap and an induced magnetic force acting on said plunger at large gaps relative to small gaps.

6. [Currently Amended] The magnetic trip unit of claim ~~4~~1, wherein said flux return component includes a coil disposed around said tube in electrical communication with said electrically conductive strap.

7. [Currently Amended] The magnetic trip unit of claim ~~4~~1, wherein said bias includes a biasing member operably connected to said plunger, said biasing member biasing said plunger away from said stator.

8. [Currently Amended] The magnetic trip unit of claim ~~4~~1, wherein said bias includes a spring biasing said plunger away from said stator, said plunger is biased in a predetermined position by a means for limiting further translation of said plunger away from said stator.

9. [Original] The magnetic trip unit of claim 8, wherein said means for limiting further translation includes setting said gap between said plunger surface and said stator surface.

10. [Canceled]

11. [Currently Amended] The circuit breaker of claim 1~~3~~0, wherein said predetermined position is defined by a gap between said plunger surface and said stator surface.

12. [Withdrawn] The circuit breaker of claim 10, wherein said plunger surface comprises a convex conical surface and said stator surface comprises a complementary concave conical surface to operably receive said plunger surface.

13. [Currently Amended] A circuit breaker including:

a first contact arm arranged between first and second electrically conductive straps;

a latching mechanism configured to move said first contact arm out of contact with said first and second electrically conductive straps; and

a magnetic trip unit for actuating said latching mechanism to trip the circuit breaker upon an overcurrent condition, the magnetic trip unit including:

a flux return component in electromagnetic communication with said first electrically conductive strap;

a tube disposed within said flux return component;

a stator disposed at a first end of said tube connected to said flux return component, said stator having a stator surface at one end; and

a plunger slidably extending from a second end of said tube, said plunger comprises a plunger surface at one end facing said stator surface, said plunger further includes another end adapted to operably interact with said latching mechanism, said plunger is biased in a predetermined position~~The circuit breaker of claim 10~~, wherein said plunger surface comprises a concave conical surface and said stator surface comprises a complementary convex conical surface to operably receive said plunger surface.

14. [Original] The circuit breaker of claim 11, wherein said plunger surface and said stator surface are each configured having a complementary conical shape, said complementary conical shape providing a generally linear relationship between said gap and an induced magnetic force acting on said plunge at large gaps relative to small gaps.

15. [Currently Amended] The circuit breaker of claim 13~~0~~, wherein said flux return component includes a coil disposed around said tube in electrical communication with said first electrically conductive strap.

16. [Currently Amended] The circuit breaker of claim 13~~0~~, wherein said bias includes a biasing member operably connected to said plunger, said biasing member biasing said plunger away from said stator.

17. [Currently Amended] The circuit breaker of claim 130, wherein said bias includes a spring biasing said plunger away from said stator, said plunger is biased in a predetermined position by a means for limiting further translation of said plunger away from said stator.

18. [Original] The circuit breaker of claim 17, wherein said means for limiting further translation includes setting said gap between said plunger surface and said stator surface.

19. [New] A magnetic trip unit for actuating a latching mechanism to trip a circuit breaker upon an overcurrent condition, the magnetic trip unit including:

an electrically conductive strap;

a flux return component in electromagnetic communication with said electrically conductive strap;

a tube disposed within said flux return component;

a stator disposed at a first end of said tube connected to said flux return component, said stator having a stator surface at one end; and

a plunger slidably extending from a second end of said tube, said plunger includes a plunger surface at one end facing said stator surface, said plunger further includes another end adapted to operably interact with the latching mechanism, said plunger is biased to a predetermined position,

wherein mating pole faces of said plunger and said stator are non-planar and complementary configured with respect to each other, said complementary configured mating pole faces of said plunger and said stator are non-planar relative to a plane orthogonal to a direction of travel of said plunger.

20. [New] The magnetic trip unit of claim 19, wherein said complementary configured mating pole faces of said plunger and said stator are at least one of acute and obtuse relative to a plane orthogonal to a direction of travel of said plunger.

21. [New] The magnetic trip unit of claim 19, wherein a majority of surface portions defining each of said complementary configured mating pole faces of said plunger and said stator are defined by planes that are at least one of acute and obtuse relative to a plane orthogonal to a direction of travel of said plunger.